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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,096	11/20/2003	Pijush K. Dewanjee	PU2183	1095
23454	7590	04/01/2005	EXAMINER	
CALLAWAY GOLF COMPANY			BUTTNER, DAVID J	
2180 RUTHERFORD ROAD			ART UNIT	
CARLSBAD, CA 92008-7328			PAPER NUMBER	

1712

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,096

Applicant(s)

DEWANJEE ET AL.

Examiner

David Buttner

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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Art Unit: 1712

The status of the parent must be updated at the beginning of the specification.

Claims 6-9 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The nomenclature of applicant's methylenebis-(2,6-diethyl)-aniline is believed improper. The last parenthesis should follow "aniline" because there are two aniline groups present for the curing agent used by applicant (LONZACURE paragraph 35 of spec). This is confirmed by Wu '261 (col 7 line 42).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5 and 10 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the Wu '002 Patent.

Wu suggests golf balls having a urethane cover and intermediate layer (abstract). The urethane is made from a polyol/diisocyanate prepolymer and a curing agent (abstract). The curing agent can be a mixture of diamines including bis (sec-butylaniline) diphenylmethane (column 4, line 58). This is applicant's preferred Unilink 4200 (see chemical Abstract registry No. 5285-60-9). Also note isomers of the named curing agents can be used. This is suggestive of claim 10. The polyol can be polyoxypropyleneglycol or polytetramethylene ether glycol (col 4 line 14). The diisocyanate can be toluenediisocyanate (col 7 line 39).

Claims 1-10 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wu '261 Patent.

Wu produces urethane covered golf balls (abstract). The urethane can be cured with polyamines such as methylene bis (diethylaniline), dialkyldiamino diphenyl methane and mixtures thereof (column 7, lines 32-45). Applicant's preferred dialkyl diamino diphenyl methane –Unlink 4200 (paragraph 32 of spec) is bis (sec-butyl amine) biphenyl methane (see chemical Abstract registry No. 5285-60-9). This compound is also suggested by Wu (column 7 lines 35). It has the same MW as methylene bis (diethyl aniline).

Wu suggests a 2.5-7.5% isocyanate content in the prepolymer (column 6, line 21), ionomer inner cover (column 6, lines 63-64), cover thicknesses of 0.03 inches (column 18, line 22), PTMEG or polyoxypropylene glycol (column 20, line 59) and shore

Art Unit: 1712

D of 30-60 and 50-75 for the outer and inner covers (column 26, line 18-20). Also note isomers of the polyamine-curing agent can be used which is suggestive of claim 10.

Claims 1-10 rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the Cavallaro 2003/0171166 Reference.

Cavallaro teaches urethane covered golf balls (abstract). The urethane can be cured with polyamines such as methylene bis (diethyl aniline), dialkyldiamino biphenyl methane and mixtures thereof (paragraph 62). Applicant's preferred dialkyl diamino biphenyl methane – Unilink 4200 (paragraph 31 of spec.) is bis (sec-butyl amino) biphenyl methane, which is also named by Cavallaro.

Cavallaro suggests ionomer inner cover (paragraph 42), cover thickness of 0.03 inches (paragraph 41), PTMEG or polyoxypropylene glycol (paragraph 58), Shore D within applicant's ranges (paragraph 79) and core compression within applicant's ranges (paragraph 82). Also note isomers of the polyamine curing agent can be used which is suggestive of claim 10.

Claims 1 and 2 rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wu '986.

Wu exemplifies golf ball covers of a urethane prepolymer cured with Unilink 4200 which is bis (sec butylamino)diphenylmethane. Wu claims (#8) mixtures of curing agents are appropriate. It would have been obvious if not considered anticipated to use Unilink 4200 in combination with another curative.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu '002 or Wu '986 or Wu '261 or Cavallaro 2003/0171166 in view of Isaac '568 or Peter '313.

The Wu and Cavallaro references suggest the use of more than one curing agent, but do not give any reasons for doing so.

Peter (col. 10 line 25-32) teaches such combinations allow for a variation in hardness of the final polyurethane. Isaac (col 2 line 23-30; col 1 line 51-60) teaches such a combination allows for a partial cure to form half shells (due to the faster curative) and a final cure to bond the half shells together (due to the slower curative).

It would have been obvious to pair a "harder" curing agent with the dialkyl diamino biphenyl methane to form a "harder" polyurethane on the Wu or Cavallaro balls.

Alternatively it would have been obvious to pair a "faster" curing agent with the dialkyl diamino biphenyl methane to allow for multiple molding steps.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-10 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6762273.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent also claims golf ball covers of urethane prepolymer cured with methylene bis(diethyl aniline) and a N,N' dialkylaminodiphenylmethane.

Claims 1-10 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6787626. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent also claims golf ball covers of urethane prepolymer cured with methylene bis(diethyl aniline) and N,N' dialkylaminodiphenylmethane (along with a third diamine).

Claims 1-10 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 and 7 of copending Application No. 10-604241. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim urethane covered balls cured with a combination of methylenebis (diethylaniline) and N,N' dialkylaminodiphenylmethane.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Scott '003 is cited (see example 3) for showing blends of aromatic amine curatives.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Buttner whose telephone number is 571-272-1084. The examiner can normally be reached on weekdays from 10 to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAVID J. BUTTNER
PRIMARY EXAMINER

D. Buttner
3/31/05

